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ON SECONDARY HEMORRHAGE.

Observations on some of the Causes of Secondary Hemorrhage. By N. R. SMITH, M.D. Prof. of Surgery in the University of Maryland.

THERE occurs to the surgeon no more unpleasant, or reproachful necessity, than that of exposing a wound recently dressed, for the purpose of securing bleeding arteries. There are causes often giving rise to this necessity, which I am persuaded, by my own experience, have not been sufficiently dwelt upon by practical writers. A few pages in this place, therefore, may not be unprofitably occupied with their exposition.

It is an admitted principle in pathology, that irritation in any part, created by whatever cause, produces an afflux of blood to that part. Consequently anything which in the management of a wound is allowed to inflict irritation upon the injured part, and increase the excitement of the wounded vessels, may become a source of hemorrhage. If I mistake not, such causes of irritation may often be found in the modes of treatment commonly regarded as applicable to such injuries. I allude particularly to the following:

1. *Sutures.*

Happily sutures are far less generally employed in surgery than formerly. Their frequent employment is condemned by modern surgeons because of the inflammation which they excite, the ulceration which their presence occasions, and the marks which they leave in the skin. I am not aware that they have often been avoided because of their occasionally producing hemorrhage, but this in my opinion should be an important reason why they should be far less generally used than even they now are.

I had occasion, three years since, to extirpate a tumor from the back of a patient in the Baltimore Infirmary. The skin was pretty extensively involved in the disease, and consequently I was under the necessity of removing a broad elliptical incision, hoping, however, to be able so to close the receding lips of the wound, as in a great degree to cover the exposed surface with integuments. The integuments of the back being rigid, and the sub-cutaneous cellular tissue of that region less yielding than in others, I found it impossible to effect as close an approximation as I desired with adhesive plasters, and I resolved to employ the interrupted sutures. These I applied as usual, and made as much traction with them as I deemed prudent. Adhesive plasters were also employed to sustain the sutures. Two or three hours after the wound was dressed, I was called in haste to my patient, and was informed that he was bleeding freely from the wound. On reaching him, I learned that soon after the dressing had been completed, he had begun to complain

of severe pain from the action of the sutures, and upon this the bleeding had soon followed. I immediately removed the dressings and found blood to be still copiously issuing from the wound. Much coagulated blood had accumulated in the wound, and by distending its walls had increased the painful tension of the sutures. To my surprise I found that one of the sutures had, on one side, cut entirely through the skin which it included. I immediately cut out the other stitch, and the lips of the wound quickly receding, I turned out a large coagulum from its cavity. Although the blood was flowing freely at the time this was done, yet the instant it was accomplished, and the parts were thus relieved of all irritation from the ligatures, and from the presence of the coagulum, it wholly ceased. I was unable to discover any considerable vessel from which blood had flowed; and although I applied ligatures to some points from which blood appeared to be slightly oozing, I was by no means certain that I had sufficiently guarded against the recurrence of hemorrhage. I then applied adhesive plasters, not endeavoring to draw the margins of the wound into contact, believing that I might soon be again under the necessity of searching for bleeding vessels.

The patient, however, complained of no more pain, and there occurred no more bleeding. There might, it is true, in this case, have been an accidental coincidence between the relief of irritation which the part was suffering, and the sudden cessation of hemorrhage; but it is at least probable that these events stood in the relation to each other of cause and effect. This case having drawn my attention to the subject, I have since ascertained that secondary hemorrhage far more frequently occurs from wounds, when sutures are employed to close them. After amputating the female breast on account of scirrhus, and when it has been necessary to sacrifice some portion of integument, I have sometimes found it necessary to open the wound for the purpose of securing bleeding vessels, and I find on recurring to my note book, that this, when it has happened, has almost always occurred in those cases in which I had deemed it necessary to employ sutures.

Since I have more generally avoided the use of sutures, in the treatment of wounds, I am persuaded that secondary hemorrhage has far less frequently occurred in my practice than before. A little reflection, indeed, must convince us that they must necessarily have the effect of inducing an afflux of blood to the part; for even where no previous injury had been inflicted, such an irritant would not fail soon to produce a sense of throbbing, and an inflammatory blush. In the vicinity of a wound such an effect must more certainly occur.

2. *Adhesive Plasters.*

In naming adhesive plasters as a cause of hemorrhage from wounds once dressed, let it not be understood that I design to condemn the general and proper use of these means of closing wounds. It is indeed impossible to effect with them the mischief which is often occasioned by the injudicious use of sutures; and yet even adhesive strips are not always innoxious in regard to hemorrhage. The adhesive plaster is sometimes prepared of stimulating ingredients, which applied in any manner to the skin will necessarily excite its vessels. When much force is used

with adhesive strips, to unite the lips of a wound, the patient will almost always soon begin to complain of painful traction of the skin, and of a smarting sensation where the adhesive plaster takes hold of it. True, they will generally soon drag along the skin, and thus become relaxed, but often not till they have created much irritation in the wound. I am confident that I have known hemorrhage often to result from irritation thus induced in a recently dressed wound, and I have seen that hemorrhage instantly cease on the removal of the strips for the purpose of securing vessels.

No advantage results in regard to the union of a wound from the employment either of sutures or the adhesive strips, with such a degree of force as to be distressing to the patient. Not only are they sometimes productive of hemorrhage, but when thus applied they generally fail to accomplish the very object for which they are used, for the stitches will generally prematurely cut through the skin, and the strips will soon so slip upon the skin as to be no longer of any avail.

3. A Coagulum lodged in the Wound.

To some, it may seem absurd, that while we know that the coagulum is the principal immediate means by which nature temporarily arrests arterial hemorrhage, this agent should sometimes be the principal cause of its continuance. That such, however, is sometimes the fact, I am assured by my own observation. A coagulum of small volume does indeed arrest hemorrhage, and probably contributes to union by the first intention. But one which painfully gorges a wound, produces a directly opposite effect. When a wound has been so closely dressed that blood cannot issue from its cavity—when, perhaps, also, it has been closed before the usual oozing of blood from small vessels has ceased, an accumulating coagulum soon begins to distend its walls, and to increase the tension of stitches (if they be employed) and adhesive strips. Perhaps, also, the parts wounded are of such a structure, that some sensitive tissue is put upon the stretch, and much irritation thus produced. It cannot be a matter of surprise that under such circumstances a coagulum should be the very cause of hemorrhage which it usually suppresses. I have sometimes found a wound thus bleeding, and have proceeded to expose the bleeding vessels for the application of the ligature. I have found the parts distended, and hard, from the presence of the coagulum, and the patient suffering greatly from the irritation caused by it, a throbbing sensation being usually present. As soon as the coagulum has been turned out from the bottom of the wound, I have seen all this suffering instantly cease, and simultaneously the blood which issued from many small vessels has ceased to flow, and I have been unable to ascertain the points from which it issued; though frequently, it is true, the effect will not so promptly cease after the removal of the cause.

4. Compresses employed to arrest or prevent Hemorrhage.

Under some circumstances, compresses, judiciously applied, are undoubtedly effectual in arresting hemorrhage even from wounded arteries of considerable magnitude; but there are many instances in which a compress is not only ineffectual, but absolutely pernicious in regard to hemorrhage, being itself indeed the principal cause of its continuance.

Some months since, I was called to a case of secondary hemorrhage from a wound inflicted upon the palm of the hand. It was the deep palmar arterial arch which had suffered injury, and two weeks had now elapsed since the accident. Hemorrhage had occurred about a week after the first closure of the wound, and had recurred every day, or oftener, till the time that I saw the patient. An intelligent physician, who attended the case, had made several ineffectual attempts to secure the bleeding vessel, which, being deeply buried in a narrow wound of firm parts, was approached with great difficulty. After each attempt he was compelled to resort to the compress. This was applied exterior to the wound, and was confined by a roller in the ordinary mode. The bleeding, however, still occasionally recurred, and it apparently became necessary to bind the compress still more firmly. On its first application the patient complained of irritation caused by its pressure, and this became much aggravated by the increased tightness of the bandage whenever the hemorrhage returned. But the periods of bleeding became more frequent, and the flow more rapid. When I entered the room, a little mental excitement being probably produced by my entrance, the blood gushed from beneath the dressings, and flowed with more rapidity than I had supposed possible from so small a vessel. I immediately stripped the dressings from the hand, and found the stream of blood issuing from beneath a firm compress which was very tightly bound to the hand. On removing the compress I found that its pressure had been so severe as to occasion a high degree of inflammation, and even to a small extent sloughing. A great degree of feverish excitement existed in the whole hand, and there was preternatural pulsation in the arteries of the fore-arm. It was manifest, indeed, that there was a very unusual afflux of blood to the wounded hand, and this was no doubt, in a great degree, caused by the action of the compress which seemed necessary to check the immediate flow of blood. I secured the vessel with some difficulty, and then covered the wound with simple dressings. The patient immediately ceased to complain of any irritation in the hand; the inflammatory excitement in the member ceased; there occurred no more hemorrhage, and the wound soon healed.

I have witnessed a very similar result from the application of a small, hard compress to a branch of the temporal artery. It at first commanded the hemorrhage; but the patient soon began to complain of severe pain from its pressure; the collateral branches began to throb with great force; the compress was lifted by the impulse given to the artery where it was wounded, and hemorrhage took place. The dressings were removed for the purpose of securing the vessel; but on thus taking away the source of irritation, the bleeding spontaneously ceased. We waited some time for hemorrhage to recur, in order to distinguish the bleeding vessel; none however recurred; the wound was then dressed lightly, and no more bleeding took place.

Were certain precautions attended to in the application of the compress, I am ready to admit that this degree of irritation would rarely result. The mischief usually arises from the unnecessary pressure of the compress on sensitive parts surrounding the bleeding vessels. When the form of the compress is well adapted, and is made to bear directly

on the vessel itself, a very slight degree of pressure is sufficient to command an artery of small calibre. But if the compress be ill-adapted, and diffuse its pressure widely around the bleeding point, great force must be employed to accomplish the object, and some sensitive part is sure to suffer. When a compress is resorted to, the wound (unless the soft parts are thin and cover a bone) should be expanded, the bleeding point exposed, and a small piece of sponge pressed directly upon it, within the lips of the wound. Another, somewhat larger, is to be superimposed, and then another, until we have formed the graduated compress, which is then to be confined with the gentle pressure of the bandage.

Whoever for a moment calls to mind certain principles in hydrostatics, will readily conceive under what great disadvantage pressure is made for the purpose of commanding hemorrhage, if it be applied to the exterior of a wound, with the intent of commanding the flow of blood by pressure diffused over the whole exterior of the cavity which receives the fluid. The blood issuing from an artery into such a cavity, presses upon its walls on every side with precisely the same force as that with which it issues from the orifice of the artery. Consequently there is required as much more force to stop the hemorrhage by pressure over the whole region of the wound, as the extent of the surface of the wound is greater than a section of the artery. We very well know, that when we open a wound and apply the finger directly to a bleeding artery, we command it with very gentle pressure. But when we close a wound in voluminous soft parts, and then attempt to command the bleeding by the pressure of the whole hand, we find it impossible.

Compresses, however, used to suppress arterial hemorrhage, must always be productive of some degree of irritation, and should, therefore, never be employed when the ligature can be applied, or torsion of the artery practised.

5. *Foreign Substances in the Wound.*

The lodgment of foreign substances in a wound is a well-known source of irritation, and consequently may be productive of hemorrhage. They should, therefore, be carefully sought for and removed, provided the means employed for this object do not create more irritation than would the presence of the foreign body.

6. *Bleeding of Cutaneous Arteries.*

In several instances in which I have been under the necessity of opening wounds once dressed, on account of hemorrhage, I have found that the bleeding had occurred from some minute artery just beneath the skin, and closely adherent to it. This circumstance I account for in the following manner. The artery being situated in the dense tissue adherent to the internal surface of the skin, instead of being involved in a loose sheath, as are usually the deeper vessels, cannot retract and conceal its orifice in a manner favorable to the formation of a coagulum in its sheath. The mouth of the vessel remains exposed close to the lips of the wound, and the coagulum within the wound, closing the deeper vessels, will have no effect upon this. Those arteries of the skin are also more influenced by sutures, adhesive plasters, &c. which directly exercise their irritation

upon the surface. Hence the importance of carefully searching for and securing such cutaneous vessels.

7. *Pressure of Soft Parts upon a Sharp Margin of an Amputated Bone.* When, in performing amputation, the surgeon has unfortunately not preserved soft parts, and especially skin of sufficient extent to cover completely the face of the stump, in his solicitude to close the parts as accurately as possible, the integuments, and even the muscles, are sometimes drawn with much force over the sharp margin of the amputated bone. Great irritation must necessarily be the consequence; and we know that sloughing often results from it. This therefore must be occasionally a source of troublesome hemorrhage, as I am confident I have witnessed in several instances.

From what has been advanced, is to be inferred the general precept, that in the treatment of all wounds in which many small vessels may have been divided, everything should be avoided in the treatment which renders the condition of the part uncomfortable to the sensations of the patient, especially all irritating traction and unnecessary pressure.

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SHOT PASSED FROM THE BLADDER.

Case in which Shot were discharged from the Urinary Bladder. By William Watson, M.D. of Bedford, Pennsylvania—communicated in a letter to Professor N. R. Smith, M.D.

The following interesting case has been communicated to me by my intelligent friend, Dr. William Watson, of Bedford. I would venture to suggest that, as these shot (which are now in my possession) have evidently the battered appearance of those which have been discharged from a fowling piece, they probably were swallowed by the patient in the flesh of game which she may have eaten;—that in passing the alimentary canal, they became lodged in some cell or follicle, in some portion, probably, of the sigmoid flexure of the colon;—that adhesion being established between this portion of the intestine, and the peritoneal covering of the bladder, the shot were conveyed by ulceration into the bladder, without entering the general cavity of the abdomen. The symptoms of local and constitutional disorder appear to me to confirm this supposition. Your readers are aware that analogous cases are on record. Yours, &c. N. R. Smith.

"I will relate in a very few words a case which occurred in a visiter to the Bedford Springs, in the last summer, of so extraordinary a character that I fear it will be considered incredible.

"Mrs. M. a lady who had been married but a few days, with her husband, came to the springs probably for amusement and change of scene. She had had a slight bilious attack before she left her home, but had recovered and was quite well when she came to the springs. Two or three days subsequent to her arrival, she had a recurrence of bilious symptoms assuming the form of remittent fever. The attack was mild in character, and readily yielded to the common means of prescription;

but on the third day of her attack, she was seized with severe pain in the right hypochondria extending towards the navel, and back towards the kidney—the pain, she said, resembled colic. I was out of town at the time, and did not see her for some hours after its occurrence. She was relieved by means of hot applications made externally. The pain returned in the night, with the desire of frequent micturition; she was finally relieved, not only of this last symptom but of the abdominal pain, by a discharge of what she called gravel, followed by a copious flow of urine. She informed me of this fact in the morning, when I visited her—and showed me the gravel which she had passed; she said the servant girl had detected it in the chamber pot, on emptying it. She said there were five or six other particles, which had been lost. On examining those particles, I found they were shot. The fact was so incredible that I made the strictest examination, both of the servant girl and the patient. The latter informed me, that she certainly passed some substance which afforded her instant relief—and the girl said that she found the particles in the pot when emptying it, and that when she brought the vessel in before it had been used at the time of this discharge, nothing was in it. The landlady, the girl, and the patient, had the fullest confidence that what they gave me was discharged by the patient. I enclose you the shot said to have been discharged. When given to me the shot were less smooth than round, and I did not immediately apprehend them to be shot, though they appeared to be a strange species of gravel; and when I returned home, I struck one of the particles with a small hammer, and found it to be shot. I immediately returned to the patient, and resumed my inquiries and examinations—I was again assured that the patient had passed the shot, with entire relief; but on closely questioning her, there seemed to be some doubt whether the discharge was from the urethra or anus, fæcal matter having been passed when emptying the bladder The patient had no recollection of having ever swallowed shot. She had felt a similar pain some years before, which passed off without remedial means. I do not doubt that the patient and attendants believed the statement made to me. I submit to you what I believe to be a fact, without any reflections on the subject, being incompetent to account for an occurrence out of the usual course of things."—*Ibid.*

TREATMENT OF NATURAL OR CONGENITAL PHYMOSIS.

BEING THE SUBSTANCE OF A PAPER READ BEFORE THE MEDICAL SOCIETY OF NEW HAVEN COUNTY, APRIL 30TH, 1829. BY V. M. DOW, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

PHYMOSIS, as is well known, consists in a permanent contraction of the orifice of the prepuce, rendering it incapable of being contracted over the glans penis with facility. The degree of contraction differs in different cases, and is sometimes so great as to partially obstruct the discharge of urine. More usually, however, the affection, when congenital, is such as to cause no inconvenience until the patient approaches adult age, when it begins to be regarded as a most undesirable imperfection, and at this time of life it usually is that surgical aid is solicited.

The methods most recommended by authors for curing natural phymosis, are either the *slitting up* of the prepuce by a longitudinal section, thus removing one imperfection by substituting another nearly or quite as bad; or removing the contracted portion by the operation of circumcision. As greatly preferable to either of these, I beg leave to propose a method of treatment which has been attended by uniform success in my practice, since the year 1825.

Perhaps I cannot better explain my views on the subject, and the causes which led to their adoption, than by relating the following case which came under my treatment. This, my first case, was that of a gentleman who had had phymosis ever since his remembrance, although he imagined that the contraction had increased within a few months previous to his applying for advice. At this time the aperture of the prepuce was so small as to admit the point of a pair of small dressing forceps with difficulty. Attempts to dilate the opening by gradually separating the blades of the forceps while their extremities were introduced, caused pain, but no perceptible distension of the part. On his passing urine, this would accumulate behind the constricted portion, causing a temporary tumor, thus showing that the orifice of the prepuce was scarcely as large as that of the urethra. The prepuce being preternaturally elongated, I proposed circumcision, and performed this operation as usually directed with a straight bistoury. The whole of the contracted portion of the prepuce being removed, the two laminæ of skin were united at different points of the circle by five stitches of the interrupted suture, made by a very fine needle, and the wound covered by a dossil of lint secured by plasters and bandage. Notwithstanding some difficulty in confining the dressings so as not at the same time to obstruct the passing of urine, the wound cicatrized in a short time. But another and an unexpected difficulty was to be encountered. As soon as the inflammation had so far subsided as to admit of any attempt to retract the prepuce, this was found at its orifice more contracted, and, owing to the rigidity of the cicatrix, more unyielding than before the operation; so much so that I presume the part at this time would have torn asunder before yielding to any suddenly distending force. I now proposed to slit up the prepuce, and was only prevented doing so by my patient's abhorrence to any farther use of the knife. I therefore resolved, although without any very sanguine hope of success, to attempt the gradual dilatation of the stricture by mechanical means. For this purpose I introduced a spring made of a thin piece of horn, rather less than half an inch in width, and coiled upon itself like the main spring of a watch, leaving one extremity of the coil slightly projecting beyond the end of the prepuce, and protecting the interior surface of the latter from injury by interposing between it and the spring pieces of soft leather. This at once exerted as much distending force as the patient could comfortably endure, and at the same time allowed free exit to the urine. With this instrument, and some considerable care on the part of the patient to preserve its proper and constant application, the prepuce was, at the end of a week from the commencement, sufficiently distended to pass over the glans freely. This being accomplished, it remained a question whether the contraction would not return after the distending means should be laid aside; nor

was it long before this was decided in the affirmative. For the patient happening to be absent from town on business, allowed the spring to slip out, and was astonished to find, at the end of twenty hours, that the contraction was as complete and as unyielding as ever. It was, however, distended again by the same gradual procedure, and afterwards prevented from contracting by the use of a piece of cork, of proper shape and size, which was worn with very little inconvenience for more than six weeks, after which the prepuce showed no disposition to contract, and has not up to the present time, an interval of more than eight years.

This disposition of the wound made by circumcising, to contract the orifice of the prepuce during its cicatrization, I afterwards observed after a similar operation performed upon a child by the late Dr. N. Smith of this city. The subsequent contraction was a great deal worse than the first, and was at length remedied by gradual distension. From these two instances may we not infer that contraction of the prepuce is a pretty common consequence of this operation, and a very serious objection to it?

But an useful lesson was learned from observing the operation of the cork used to maintain the proper degree of dilatation. It was found that one of the full size of the orifice, and over the shoulder of which the constricted prepuce could with difficulty be drawn, soon became loose, so that in the course of 24 hours it would drop out of itself, rendering one of larger size, or formed with a larger shoulder, necessary. Taking the hint from this circumstance, I treated my next and all subsequent cases with the cork alone, and with uniform and perfect success, without having recourse to the spring or any other distending means. The reasons for preferring the cork to the spring, are, its greater simplicity, and its being more easily adapted and introduced. The patient soon learns to introduce it himself, and to make larger ones as they become necessary.

The cork instrument used on these occasions is made as follows:— Take a sound vial cork of the size requisite and about half an inch in length. Make it as perfectly cylindrical as convenient, then round off the angles, cut a shallow groove round the centre of the cylinder, scoop out one end until it becomes sufficiently concave to correspond with the convexity of the glans penis, and lastly, perforate the cork longitudinally so as to allow free exit to the urine through the aperture. When introduced, the concave end rests in contact with the glans, its grooved middle is closely embraced by the band of the prepuce which constitutes the stricture, while its circular shoulders at either end prevent it from slipping either out, or backward behind the stricture. In order to introduce it, draw back the prepuce as far as practicable, so as to denude the apex of the glans, against which press the concave extremity of the cork pretty firmly, while the partially reflected prepuce is at the same time to be drawn forward until the strictured part is lodged in the circular groove. In about twenty-four hours after being introduced, the cork will become loose, and if not removed will fall out of itself, when one of larger size must be substituted, and this again on loosening must be replaced by a still larger, and so on, until the desired degree of dilatation is effected. The size of the aperture should after this be maintained by

wearing the largest sized instrument for several weeks;* and in order that it may not prove troublesome by falling out, it should be fashioned with a deeper groove and consequently with more projecting shoulders.

The cork in this case evidently does not operate so much by its own elasticity, as by taking advantage of the elasticity or of some other property of the living fibre of the prepuce itself. Its size is always to be such, as when first introduced to cause sensible uneasiness in the contracted part. By remaining inserted for a few hours the uneasiness subsides, the contractility of the skin appears to be overcome more and more, until it will no longer retain the cork. But whatever may be the explanation, I am so certain of the result, that I feel perfectly confident of success in cases of congenital phymosis, while making use of this simple contrivance alone, so far at least as remedying the contraction is concerned.

If, as has been asserted by authors, phymosis is sometimes owing to preternatural elongation of the prepuce, the excising of this may be necessary in such cases. If in other cases shortdess of the frenum is the obvious cause, dividing the frenum will of course be necessary. But in either case, it is more than probable that recourse will become necessary to mechanical dilatation either of the original or of the consecutive phymosis.

From repeated trials of this method of treatment I am led to conclude:

1. That in all cases of natural phymosis, the constricted prepuce may be dilated to any desirable extent by gradual mechanical distension.

2. That however useful circumcising may be as a remedy for elongation of the prepuce, it can never be necessary simply for removing the contraction.

3. That the operation of slitting up the prepuce, as practised by M. Petit and others, can never be necessary in simple natural phymosis, however necessary it may be in cases complicated with chancre or other acute disease of the glans penis.

The distensibility of the prepuce by a force perseveringly applied, as well as its tendency to contract again to its former size when no means are used to prevent it, are circumstances which correspond very exactly with those observed by Sir A. Cooper, relative to the female urethra. May we not learn from observing the operation of distending means upon the living fibre in these visible and tangible parts, something useful for directing our employment of similar means in cases of internal strictures? In my opinion, the frequent inefficacy of bougies in the treatment of strictured urethra, is rationally accounted for by, and clearly attributable to the length of the intervals which are allowed to elapse between the successive introductions of this instrument. These intervals are recommended by Arnot and others to be *from half a day to two or three days*, according to the degree of irritation produced; a time, in my opinion, more than sufficient to allow the part to recover from whatever dilatation might have been effected while the bougie was in the urethra. After having seen a stricture of the prepuce, which had been fully dilated by a

* How long it is *absolutely necessary* to continue the use of means for preserving the dilatation of the prepuce, I am not prepared to say. I have generally directed the cork to be worn six weeks or more after the distension had been sufficiently effected. Probably a less time might have been sufficient to prevent a relapse.

week's unremitted exertions, contract again to its former dimensions in the space of twenty hours, I cannot entertain any well-grounded expectation of benefiting strictured urethra by this *occasional* use of the bougie. On the contrary, by selecting such a sized instrument as can be borne without much inconvenience, and by persuading the patient to wear it *almost constantly* (withdrawing it only for the purpose of allowing the patient to urinate and for the introduction of one of larger size), and continuing its use for some weeks after the dilatation shall have been accomplished, should such bold treatment prove applicable to the male urethra, we should possess a most controlling remedy for this kind of stricture.

New Haven, Conn., Jan. 18, 1834.

REPLY TO DR. STARRETT'S "CASE OF DEBILITY."

To the Editor of the Boston Medical and Surgical Journal.

Sir,—In the 20th number of your Journal I read a "Case of Debility, communicated for Advice," which so much resembles in its symptoms one which I have had under my care, that I conceive it my duty to say a few words on the subject.

Mrs. H., aged 40, was confined Dec. 12, 1832. Had a tedious labor, and was rather feeble after "put to bed;" but notwithstanding, she was very comfortable until the fourth day, when, in consequence of carelessness, she took cold, and a violent peritonitis followed, which left her weak and low. If I should enter into the particulars of her symptoms, I could not describe them more accurately than they are described in the above-mentioned case, after the inflammation had left her.

My treatment, founded on the advice of several medical gentlemen, was various, but did not avail anything towards healing my patient. I prescribed astringent injections, viz. Port wine, tea, zinc and lead, gave her nitras argenti, sulph. zinc, sac. saturni, and Griffith's M. mix.; but still not much benefit was derived. I did not use the pessary, but the sponge instead.

At the time she was under this treatment, it was necessary to use the catheter. Being quite young in practice, I felt very anxious seeing my patient lie in this situation. I perused my authors, but could get no help.

About the first of Sept. 1833, I was led to have recourse to iodine, from having used it in some other cases of debility. I gave by mouth, and used it for injections. I found, after using it some time, that my patient was on the gaining hand. I commenced with small doses, and increased gradually as the patient could bear, according to the following directions:

℞. Iodine, 30 grs.
Hydriodate potass, 20 grs.
Rain water, ʒj.

Dose 3 gtt. thrice a day, and increase gradually. My patient was so weak when I commenced this medicine, that three drops were as much as the stomach would bear. For an injection, I used the above very weak, and three times a week. A horizontal position and light diet were rigidly enforced.

My patient now is very comfortable, and does her work; has left off the medicine, and has no necessity for the sponge* or any other substance to support the uterus.

This treatment answered in this case beyond all expectation, but still it might fail in another case. I should like to have it tried further, and if my medical brethren should think it worthy of trial, I shall be much pleased to learn the result. Yours, &c. JOSEPH P. HALL, M.D.

W. Rumney, N. H. Jan. 20, 1834.

VALUE OF CHLORINE INHALATIONS IN PHTHISIS.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I have read, with great attention and much interest, the abstract of observations by Dr. Stokes of Dublin, on the "Value of Chlorine Inhalations in Pulmonary Consumption," published in the Boston Medical and Surgical Journal of the 15th inst. No. 23; and have merely to observe, for the present, that I by no means can coincide with the pathological, and, particularly, the therapeutical opinions advanced by that gentleman, as is therein stated to have been delivered in one of his recent lectures at the Meath Hospital. My attention, also, had previously been arrested by reading an abstract, or review, of Cotteran's memoir, originally published in the "Archives Generales de Medecine," on the utility of Chlorine Inhalations in Phthisis: so much so, indeed, as to induce a determination to try its effects on the next subject that should come under my personal attention. Perhaps it may appear egotism to repeat, that my views and those expressed in Cotteran's memoir were as widely different as they are from those noticed above by Dr. Stokes. Be that as it may, however, different opinions and treatment of the disease under consideration, will be soon advanced and laid before the profession, in a paper in the "Baltimore Medical and Surgical Journal and Review," in time, I hope, for its next, or April number. Its publicity has been delayed thus far, from a wish to ascertain how far a rigorous winter will effect *my patient*, after the loss of the greater portion of his left lung. The agent, in thus manifesting so remarkable and radical a curative development, was *oxygen*, or *vital air*, applied in the form of *nitric acid gas*, by *inhalation*. The subject, a private soldier, of Company F. in the 1st Regiment of the U. S. Artillery, now on duty at Fort Washington, Md. was originally affected with anasarca and ascites, and, when but partially relieved, with acute hepatitis; pneumonia soon afterwards supervened, which finally terminated in phthisis pulmonalis. Either of the above-named diseases, by its severity and virulent attack, was sufficient in itself to prove fatal in habits of ordinary vigor. Such at least is the opinion of your correspondent, derived from observation and experience, during the last thirty years. As before observed, the case will be minutely detailed in the medical journal above indicated.

Very respectfully, your obedient servant,

J. A. BRERETON, U. S. Army.

Fort Independence, 16th Jan. 1834.

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* The sponge was omitted after the commencement of the iodine.

BOSTON MEDICAL AND SURGICAL JOURNAL.

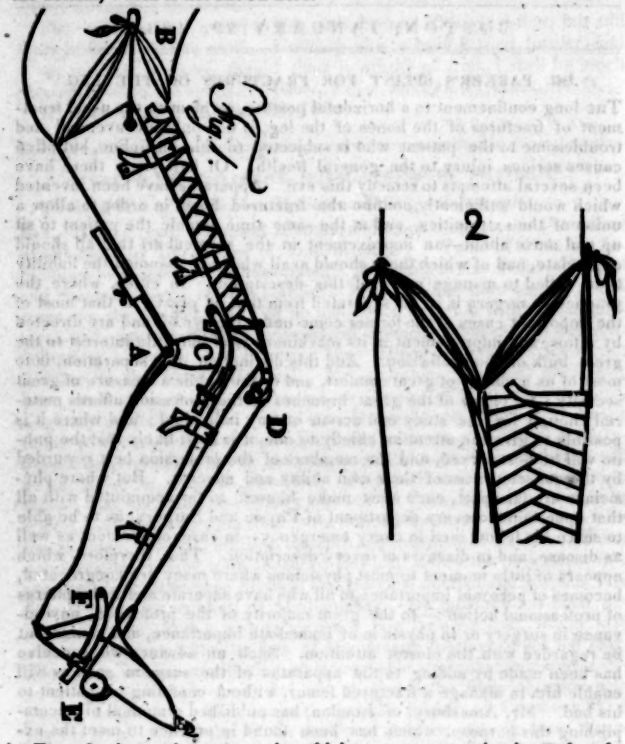
BOSTON, JANUARY 29, 1834.

DR. PARKER'S SPLINT FOR FRACTURES OF THE LEG.

The long confinement to a horizontal posture, incident to the usual treatment of fractures of the bones of the leg, is not only inconvenient and troublesome to the patient who is subjected to this discipline, but often causes serious injury to the general health. Of late years there have been several attempts to remedy this evil. Apparatus have been invented which would sufficiently confine the fractured bone, in order to allow a union of the extremities, and at the same time enable the patient to sit up and move about—an improvement in the surgical art that all should appreciate, and of which those should avail who have assumed the liability to be called to manage cases of this description. In cities, where the practice of *surgery* is so far separated from that of *physic*, as that most of the important cases of the former come under the eye of, and are directed by a few, any improvement in its machinery is of but little interest to the great bulk of the profession. And this distinction, this separation, is to most of us a matter of great comfort, and to the public a measure of great security; for either of the great branches of the profession affords material enough for the study and action of any individual; and where it is possible to give the attention chiefly to one, it is most likely that the public will be best served, and the members of the profession best rewarded by the consciousness of their own ability and success. But where physicians are far apart, each must make himself so far acquainted with all that appertains to every department of Physic and Surgery, as to be able to serve his fellow men in every emergency—in cases of accident as well as disease, and in diseases of every description. That, therefore, which appears of little moment to most physicians where many are congregated, becomes of personal importance to all who have separate and wide spheres of professional action:—to the great majority of the profession, any advance in surgery or in physic is of immediate importance, and cannot but be regarded with the closest attention. Such an advance we conceive has been made by adding to the apparatus of the surgeon such as will enable him to manage a fractured femur, without confining his patient to his bed. Mr. Amesbury, of London, has published a method of accomplishing this purpose, which has been found in practice to meet the expectations of the inventor; and how far, or in what particulars, the splints now offered the profession by Dr. Parker, of Billerica, in this State, are preferable to those of Mr. Amesbury, must be determined by actual experiment. Dr. P. has discovered great ingenuity in the arrangement of his apparatus, and we regret that it is not in our power to offer a more full account of them than is contained in the following sketch, which Dr. P. has himself drawn and left with us for publication. If any of our readers, however, desire a closer examination of these splints, a set of them is left with the Editor, who will be happy to show and explain them to any of his brethren.

"Fig. 1 shows the splint applied in case of transverse fracture of the femur. The extending power, confined just above the knee, passes over a pulley wheel at D, which can be raised or lowered at pleasure, thence

nearly down to the foot, where it divides, and passing to each side turns round a pulley on each side as at E, and is confined by a rag wheel at the bottom, which is not shown here.



B partly shows the manner in which counter-extension is employed. This is better shown in fig. 2.

A. A hinge, fastened by rivets at one end to the tibial portion of the splint. The other end passes through an iron fitted to receive it, confined by screws to the femoral portion. Here, by means of a thumb nut, any desirable angle of the leg with the thigh may be obtained with ease.

C. A brace connecting the two portions of the splint. One end of this is furnished with a slide, and is confined and regulated by a thumb nut.

F. A similar brace, by means of which any desirable angle of the foot with the leg is readily obtained, and secured by means of a thumb nut.

Fig. 2. A section of the splint, showing the manner of employing counter-extension, and preventing rotation. Straps of soft leather or cloth may be used, to pass between the thighs and to the trachanters major, where the fixed points of counter-extension are secured. See B, Fig. 1.

The advantages, in my estimation, possessed by this splint, consist in the manner of applying extension and counter-extension, the ease with which any desirable angle of the thigh and leg can be obtained, secured, and altered at pleasure, and doing away the necessity of confining the patient in a horizontal position. I should think this splint much better adapted to fractures of the neck of the femur, and also those within the capsular ligament, than any I have seen, as extension is so easily effected and regulated, and rotation prevented."

Fracture of the Patella by Muscular Action.—A remarkable case of this description is reported to have occurred of late in Bartholomew's Hospital. The patient was a robust man 45 years of age, whose patella was fractured while in a violent epileptic fit, by excessive action of the surrounding muscles. Since his admission he has had several fits, and has been in a state closely bordering on delirium tremens. Cathartics and stimulants were exhibited with the best effects. The fracture of the patella was evident from the depression between the two portions of the bone, into which the fingers might readily be introduced. The power of extending the limb was entirely lost. It was extended on a padded splint, and the patient placed in a sitting posture, in order that the rectus muscle might be relaxed; the heel was then elevated towards the trunk of the body to approximate the lower to the upper portion of the patella, and rollers and bandages were applied.

Dr. Cross, of *Lexington, Ken.* says:—The practice of giving mercury during the existence of ptyalism cannot be too severely deprecated. If mercurial ulceration should progress rapidly, or threaten extensive sloughing, we should have immediate recourse to the internal as well as the external use of nitric acid. We have never seen a case so obstinate, that it would not yield to the energetic employment of this article. Indeed, we had recently an opportunity of testing its powers in an infant, that had been violently salivated, and in whom extensive sloughing was threatened. The remedy was completely triumphant. To an adult we give ten drops of the acid in a little syrup three times a day; the dose to be gradually increased. The ulcers to be washed with it in a state of dilution, but sufficiently strong to produce considerable pain. This article is to be used in the manner directed until all the sloughs have parted and the ulcer exhibits a healing aspect, which will be in the course of two or three days.—*Trans. New York Med. Soc.*

Notice of the advantages of the employment of Caustic in the treatment of incarnated nail.—By M. Levrat Perroton, M.D. of Lyons. The author insists upon the advantages of the application of caustic potash, which converting into an eschar the fungous growth which envelopes the nail, permits the patient to walk with ease when the action of the caustic is over, and causes immediately to cease the pain produced by the nail having entered into the flesh. He quotes on this occasion the passage of Ambrose Paré, treating of incarnated nail. "I will further say" (remarks this illustrious surgeon) "that there are many in whom the nails enter into the flesh of the toes which cause them extreme pain, and often they are not benefited by cutting off the nail, for growing again it causes equal pain, and then to effect a cure it is necessary to cut off entirely the flesh in which the portion of the nail is imbedded, which I have often done with good result. It is to this operation that M. Levrat Perroton prefers the destruction of the flesh by caustic.—*Trans. Med.*

Whole number of deaths in Boston for the week ending January 25, 28. Males, 14—Females, 14.
Of intemperance, 2—dropsy on the brain, 2—infantile, 2—typhous fever, 4—pleurisy, 1—consumption, 5—scarlet fever, 1—croup, 3—dropsy in the chest, 1—lung fever, 2—throat distemper, 1—dropsy, 1—debility, 1. Stillborn, 2.

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